Effective Joint Training: Meeting the Challenges

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TODAY'S SUCCESSFUL military operations are joint operations. Senior military and civilian leaders recognize the need for increased jointness at every level. Chief of Staff of the Army General Peter J. Schoomaker stated the requirement for "achieving joint interdependence" within the Army's culture, structure, and operations because we do not fight alone.[1] One way to establish joint interdependence and increase our collective warfighting capability is through joint training.

For the last decade, joint training has been the responsibility of combatant commanders with assistance from the U.S. Joint Forces Command (USJFCOM). As the joint trainer, USJFCOM supports computer-driven, operational-level exercises to train joint staff processes and procedures. With the 2002 publication of the *Strategic Plan for Transforming DOD* [Department of Defense] *Training*, USJFCOM's training mission expanded to create a Joint National Training Capability (JNTC).[2]

JNTC: What It Is and Is Not

JNTC is not a place.[3] It is a training capability intended to increase the level and complexity of joint training by integrating existing service training facilities with joint and service training events and exercises.

JNTC is not one set of training devices or simulations; it is a linkage of existing service training structures, simulations, and systems inside a common joint framework. Its challenge is to solve the many technical problems of linking separately designed service simulations, virtual trainers, and existing live training opportunities to provide a seamless picture via existing command and control, communications, computers, intelligence, surveillance, and reconnaissance (C4ISR) networks. As Deputy Undersecretary of Defense for Readiness Paul Mayberry notes, "A JNTC encompasses more than a set of training ranges."[4]

JNTC's purpose is to train soldiers, sailors, airmen, and marines in collective and individual joint tactical tasks. In the past, joint training has focused on staff training at the joint task force (JTF) and component levels (for example, the Joint Force Land Component [JFLC]). JNTC's focus is to train tasks that require jointness to the lowest level while supporting training for continued joint proficiency at higher levels.

JNTC Vignette

Envision an infantry brigade on a cold January morning at the National Training Center (NTC) at Fort Irwin, California, as it prepares to conduct an attack. The brigade is under the command and control of a division headquarters located at Fort Hood, Texas, which is also a training participant. In addition to the brigade at the NTC, the division controls U.S. Marine Corps (USMC) forces at Twentynine Palms, California, and other "constructive" BLUFOR [Blue Force] ground forces in the "synthetic world of a computer simulation" with tactical command posts at Fort Hood.

A JTF headquarters at Suffolk, Virginia, maintains electronic connectivity with a "live maritime force," a carrier strike group off the coast of California, and with its joint force air component at Nellis Air Force Base, Nevada, controlling live and constructive sorties. All participants, from the three-star JTF commander to the NTC soldier performing surveillance, use the same scenario and BLUFOR mission set. Observer-trainers from the services, USJFCOM, and other specialists are scattered throughout the force.

The enemy is an adaptive, defending opposing force (OPFOR) equipped with a wide range of weapons systems and capabilities located at the NTC and Twentynine Palms arrayed in the computer simulation. Each component and its respective training audiences understand the OPFOR's capabilities and intent and the operational environment's complexity.

As the BLUFOR operation progresses, the NTC OPFOR sees an opportunity to fix BLUFOR units

through a demonstration with both military and paramilitary forces while creating incidents against the BLUFOR to affect the attitude of the local population. At the same time, the OPFOR will conduct a strike by isolating and destroying a small U.S. force to exploit the reaction to success as reflected by the media. At the same time, the OPFOR hopes to successfully interdict and ambush key BLUFOR lines of communication.

In BLUFOR brigade command posts, a common operating picture displays a synthetic battlefield with annotated BLUFOR and OPFOR locations. Intelligence from simulations, virtual unmanned aerial vehicles (UAVs), and live intelligence, surveillance, and reconnaissance (ISR) populate the automated data processing systems and provide situational awareness. To the brigade commanders, all OPFOR units are threats and, as with BLUFOR units, it is transparent which are live and which are simulated.

As a BLUFOR company begins movement, the commander receives reports from the battalion and units in contact. As the OPFOR's locations become known, the company commander recognizes the danger of being isolated and requests support. As rehearsed, the battalion requests immediate joint close air support (JCAS). A section of two aircraft from a carrier operating off the coast of California is available for immediate support.[5]

In addition to the two inbound F/A18s, manned and unmanned ISR platforms peer into the NTC to look for OPFOR air defenses and other high-payoff targets. As the F/A18s approach, the fire support team halts suppression of enemy air defenses. The joint terminal attack controller and the battalion air liaison officer bring the aircraft in for attack. At battalion and brigade headquarters, AH64s coordinate to provide support, using live aircraft and virtual AH64 trainers.

As part of the normal battle rhythm, the commanding general at Fort Hood updates the JTF commander and the joint force air component commander (JFACC), sharing options and operating pictures. The JFACC at Nellis provides input via a shared video teleconference. He notes that virtual F16s in the computer simulation are attacking available targets as nominated and approved, and he provides an update on virtual F16 sorties flown against live targets at Twentynine Palms.

This training vignette is in many ways simplistic, but it illustrates the potential power of future joint training. Linking and integrating existing live-virtual-simulation training systems with joint and service command and control (C2) and ISR systems in a seamless environment within a JNTC construct offers each service opportunities to improve multi-echelon joint training and increases proficiency at joint tasks under realistic conditions. In January 2004, the services and USJFCOM's components formally implemented the JNTC concept with its first exercise.

Challenges

Planning and conducting effective training is hard work and requires detailed preparation by the training audience and the creation of supporting training structures and systems. Effective training involves allocating sufficient time, money, and personnel and, if it requires joint training, allocations of each from each service involved. Solving hardware and software issues for training systems and existing C2 and ISR systems is hard and even more complex when linked to separate service-designed training systems and simulations.

With competing training objectives and schedules, coordinating and executing complex joint training has become even harder as we simultaneously deploy and fight the Global War on Terrorism. Yet, to meet the joint training transformation mandate and enhance our ability to operate jointly, we must collectively meet several challenges to enable the JNTC concept to be more than a bumper sticker. The following are some thoughts for leaders and trainers to consider.

Purpose, method, end state. What is the purpose of JNTC? If it is to train jointly, we do joint training at every rotation at each of the combat training centers. But senior leaders' evidence and junior leaders' feedback indicate what we do is not enough.

Determining JNTC capabilities requires determining what we need to train and at what level. For example, training JCAS might involve various echelons and training methods. For example, do we need live aircraft to attack targets with commands from a controller (universal observer) against a live OPFOR arrayed on complex terrain with civilians on the battlefield in close proximity to U.S. or coalition forces? Do we need interaction between staffs from the battalion through the JFACC to coordinate immediate and planned close air support (CAS)? Do we need to exercise communications links and air tasking order (ATO) procedures to the same fidelity as in wartime? If the answer to these (and hundreds of other) questions is yes, we can clearly identify training tasks and the purpose of JNTC-required capabilities and determine an end state.[6]

Address competing Title 10 service and joint training requirements. Each service must maintain its competencies through readiness, training, and modernization. Services often train alone; not all training needs to be joint. But, warfare has become


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more joint and requires increased competence on joint tasks at the tactical level. Success depends on wiser leaders at all levels determining what does or does not need to be jointly trained.

We must look for new ways to cooperatively increase jointness and opportunities to exchange forces in exercises, especially low-density assets and units. We must also recognize what has already been successfully accomplished; for example, cooperation between the U.S. Army and U.S. Air Force (USAF) within the Battle Command Training Program (BCTP). During a BCTP warfighter rotation, interaction between Army and USAF commanders and staffs takes place during each exercise. This involves general officer exchanges with qualified Army and USAF observer-trainers on air integration issues and quality feedback via formal and informal after-action reviews (AARs).

No training program is perfect, but given competing training objectives and available joint service participation, we need to recognize, applaud, and build on these ongoing efforts. All services need to better synchronize training events and exploit joint opportunities whether they are designated as JNTC events or not.

Recognize and deconflict service operations and personnel tempo. Each service supports the Global War on Terrorism by providing trained forces to component commanders around the world. Those not involved in current operations are training core competencies in addition to normal mission support and garrison operations.

JNTC events should not be an add-on to an already heavy schedule of deployments, exercises, and other training. At the same time, service and joint exercise planners cannot stiff-arm potential joint training opportunities by refusing to modify existing exercise goals, objectives, tasks, dates, participants, and locations.

Establish specific training objectives and goals. An old adage states, "If you don't know where you're going, then any road will take you there." We must consider several crucial questions to ensure joint training takes us where we want to go. What are the approved exercise objectives based on a unit's mission essential task list? What service and joint tasks are to be trained? What training tools, devices, and simulations do we need? Unless we answer the first two questions, we might establish a superb training and exercise support structure that does not meet training requirements and objectives.

Normally, more tasks exist than time available to train them, requiring commanders and trainers to conduct a task triage to essentially determine what tasks must be done to standard to satisfy the mission and what resources are available to train the task. Prioritizing joint tactical tasks to train is imperative.

Establish measurable performance standards. For problems requiring a joint solution, what does "right" look like? Have we done the analysis to determine what tasks, conditions, and standards produce battlefield success? Specificity drives pre-exercise training requirements and helps identify gaps in service and joint doctrine, tactics, techniques, and procedures; the technologies required to execute the task; and the training resources (devices, simulations, and networks) to train to standard.

Each service's participation in developing baseline tasks, conditions, and standards for JTT is imperative. Each service has a stake in the effort. JFCOM management of JTT development as an ombudsman can help develop the right JTTs in the right order to the appropriate standard. With these JTTs, the services can determine the training centers or exercises that best satisfy this training and request and allocate resources to build training support structures.

Provide realistic training that reflects the contemporary operational environment. Joint doctrine defines the operational environment as "the composite of the conditions, circumstances, and influences that affect the employment of military forces and bear on the decisions of the unit commander."[7] Realistic training means replicating the wartime conditions under which the task is completed. Training that does not do so is often negative training. Not every training opportunity can provide all the battlefield conditions in sufficient fidelity. Trainers must identify those to replicate during training.

The Joint Staff's Universal Joint Task List (UJTL) lists strategic, theater/operational, and tactical joint tasks and references-related service tasks for successful operations.[8] The UJTL lists conditions—physical, military, and civil (political, economic, and cultural). USJFCOM and the U.S. Army Training and Doctrine Command's (TRADOC's) analysis of the contemporary operational environment (COE) identifies other, more detailed variables commanders should consider.

Obtaining agreement on training conditions is a basic requirement for effective training. JNTC event planning often entails balancing the right conditions to provide service-training requirements with available training resources. For example, an enemy ground OPFOR equipped with air defenses, hiding inside an urban area and using civilians as shields, might be used to train ground forces today, but this set of conditions might not satisfy other service training requirements.

Identifying conditions to replicate or not and realistically replicating them, obtaining consensus, and incorporating field input will ensure we train the right tasks in the right way.

Field a realistic, uncooperative OPFOR. The enemy is a key operational-environment variable. Most trainers agree that an OPFOR is essential to training but differ on what constitutes a plausible, reasonable OPFOR. We must continue to develop the characteristics of the OPFOR with necessary documentation that will drive requirements and enhancements.

The OPFOR must be adaptive, learning, free thinking, and provide challenges and rigor. Live OPFORs must be instrumented to provide feedback and results. Constructive, virtual training simulations and simulators should replicate the threat realistically.

If the OPFOR does not provide training rigor and replicate threat capabilities in the COE, we are doing a disservice to the soldiers we prepare for war. Fielding or replicating unrealistic OPFOR capabilities defeats learning.

Training scenarios, roads to war, and the operational environment. Scenarios and roads to war must have sufficient detail to set conditions for the training event. Exercise planners should avoid producing complex roads to war and scenarios that do not answer the so-what question and lack

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specific details to support staff and service training. Jamming together separate service-produced scenarios produces an incoherent story.

Conduct detailed event and exercise planning. Success in training is in the details and the planning before training begins. Cooperative, timely, efficient event planning is necessary for success. Exercise planning should not consume staffs. Clear, detailed training plans, coordinated among participants, must address training objectives, training tasks, troop lists, conditions, and other required resources. Planners must also clearly identify preexercise training, safety requirements, and other details.

Create training devices that directly support training. Training must enhance warfighting capabilities. A training environment that seamlessly integrates live, virtual, and constructive training systems will enhance both service and joint training. The Army, at the CTCs, has been moving this way for years.

As we develop the JNTC support structure, we must prioritize, acquire, and develop training devices and enhancements that directly support specific JTTs and replicate battlefield conditions. We must balance training enhancements against safety, security, costs, and risks.

Honestly assess JTT proficiency and effectiveness. Developed joint tasks, conditions, and measurable standards (with feedback through instrumentation or data analysis) allow us to assess whether we have met the joint standard. Assisted by expert joint qualified controllers-trainers and experts, unit-led AARs should provide honest, frank assessments of how well units perform tasks. In addition to addressing unit proficiency, AARs must identify shortfalls in joint and service doctrine and equipment and the training support structure that will enhance future joint training and effective use of limited training funds.

Most training produces lessons learned, but lessons are only learned when change occurs. AARs must determine how to fix problems, then establish a system to make an agency or staff responsible for the action.

JTT proficiency assessments must be balanced against conditions. For example, employing CAS or controlling fires is more complicated at night in an urban area. For example, if aircraft operate only during daylight in open desert terrain, trainers must determine if the unit is trained to employ CAS under all conditions.

JNTC is about Warfighting

Warfighting is a team effort. Joint warfighting requires realistic joint training at all levels. Given the current tempo for U.S. forces, the goal of all training is to make them first-class.

Time is often the most valuable training commodity. Time requires us to prioritize joint tasks and adapt existing service exercises to meet joint training requirements.

The JNTC can enhance warfighting capabilities through ranges, simulations, and sophisticated software and hardware and by providing the warfighter the metrics to train tasks using measurable standards for success. Many of the challenges addressed are being worked, but bear repeating, given the continual turnover of key leaders, trainers, and staffs.[8] Whether JNTC existed or not, joint training makes fiscal and common sense. More important, joint training to meet high standards ensures mission accomplishment and saves our most valuable treasure—soldiers, sailors, airmen, and marines on the battlefield. ***MR***

NOTES

1. Chief of Staff of the Army GEN Peter J. Schoomaker, remarks at the Association of the U.S. Army Eisenhower Luncheon, Washington, D.C., 7 October 2003, on-line at <www.army.mil/leaders/ CSA/speeches.htm>, accessed 3 November 2004.
2. U.S. Department of Defense (DOD), *Strategic Plan for Transforming DOD Training* (Washington, DC: U.S. Government Printing Office [GPO], 1 March 2002).
2. The Joint Forces Command Joint Management Office defines JNTC as "a cooperative collection of interoperable training sites, nodes, and events that synthesizes Combatant Commander and Service training requirements with appropriate 'joint context.' Founded on the four pillars of (1) realistic combat training, (2) an adaptive and credible opposing force, (3) common ground truth, and (4) high quality feedback, the JNTC underpins a global, information age joint national training capability [and] advances Defense Department transformation efforts to include enabling multinational, interagency and intergovernmental network-centric operations," Briefing, Joint Management Office, JFCOM, Norfolk, Virginia, 13 August 2003.
3. Deputy Undersecretary of Defense, Readiness, Paul Mayberry, "Training Together, Fighting Together," *Training and Simulation Journal* (June–July 2003): 36-37.
4. The U.S. Air Force defines a sortie as one aircraft in flight with normally two aircraft operating together. The U.S. Navy and U.S. Marine Corps define two aircraft as a section.
5. Joint Chiefs of Staff (JCS), Joint Publication (JP) 3-09.3, *Joint Tactics, Techniques and Procedures for Close Air Support* (Washington, DC: GPO, 3 September 2003).
6. JCS, JP 1-02, *DOD Dictionary of Military and Associated Terms* (Washington, DC: GPO, 12 April 2001).
7. Joint Chiefs of Staff Manual (JCSM) 3500.04, *The Universal Joint Task List*, ver. 2 (Washington, DC: GPO, 1996), supplement to JCSM 3500.03, *Joint Training Manual for the Armed Forces of the United States* (Washington, DC: GPO, September 1998).
8. Although this article was written in late 2003 and USJFCOM has conducted a handful of exercises, we are still struggling with many of the challenges this article addresses. Observations and input for this article came from various sources and personal visits and experiences at the CTCs. The observations and opinions expressed in this article are my own and do not reflect those of TRADOC or the U.S. Army.

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